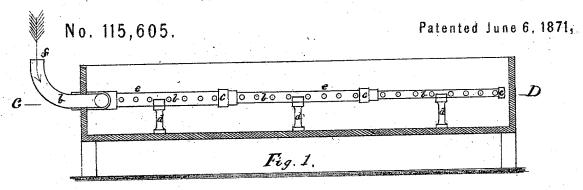
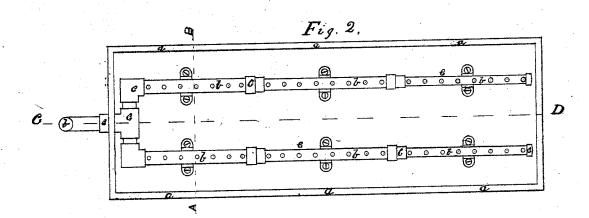
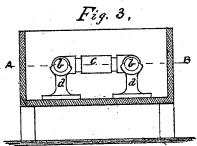
## JACOB F. HARLY.

## Improvement in Milk Coolers.







Ohn J. Clause, Philip Perry Inventor Jacob. F. Harly by Clause & Perny My

## UNITED STATES PATENT OFFICE.

JACOB F. HARLY, OF CLEVELAND, OHIO.

## IMPROVEMENT IN MILK-COOLERS.

Specification forming part of Letters Patent No. 115,605, dated June 6, 1871.

I, JACOB F. HARLY, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain Milk-Cooler, of which the

following is a specification:

My invention relates to that class of milk-coolers which performs the office of cooling by forcing atmospheric air through the milk through the medium of perforated tubing contained in the bottom of the milk-vessel; and it consists in using for such purposes tubing whose diameter is gradually decreased from the size at the end of air-inlet to its extremity; the object and effect being the attaining uniformity of pressure of the forced air.

Figure 1 represents a longitudinal of Fig. 2 at C D; Fig. 2, plan; Fig. 3, cross-section,

A B.

a represents a wooden tub into which sections of perforated tubing b are placed on

standards d. Perforated tubes b are larger at the inlet f than at the extreme end, so as to have an equal amount of pressure over full length of tubing. The sections of perforated tubing are connected by means of screw-couplings, so that they may be easily taken apart and cleansed.

What I claim as my invention, and desire to

secure by Letters Patent, is-

The perforated tubing b, whose diameter, for the purpose of obtaining uniformity of pressure, is gradually reduced in size from the inlet f to the extremity, when constructed and applied substantially as described.

JACOB F. HARLY.

Witnesses:

JOHN J. CLAUSE, PHILIP PERRY.